Fuels

Existing Condition:

The Crescent Creek project area is made up predominantly of Lodge pole pine with some mixed conifer and Ponderosa pine and a number of riparian and/or wetlands throughout. Heavy dead and down debris can be found throughout the area as well. For simplicity Fire Regime(FRCC) was used as the reference condition to determine ecological capability reference condition. A natural fire regime is a general classification of the role fire would play across a landscape in the absence of modern human mechanical intervention, but including the influence an aboriginal burning (Agee1993,Brown 1995). A Fire Regime Condition Class (FRCC) is a landscape classification that describes the amount of departure from the natural (historical) fire regime. They include three condition classes for each fire regime. This departure results in changes to one (or more) of the following ecological components:

• Vegetation characteristics (species composition, structural stages, stand age, canopy closure, and mosaic pattern);

• Fuel composition;

• Fire frequency, severity, and pattern; and

• Other associated disturbances (e.g. insect and disease mortality, grazing, and drought).

All vegetation and fuel conditions or wildland fire situations fit within one of the three classes. The three classes are based on low (FRCC 1), moderate (FRCC 2), and high (FRCC 3) departure from the central tendency of the natural regime. Low departure is considered to be within the natural range of variability, while moderate and high departures are outside. Characteristic vegetation and fuel conditions are considered to be those that occurred within the natural fire regime. Uncharacteristic conditions are considered to be those that did not occur within the natural fire regime.

Using the latest (2004) Fire Regime Condition Class the following conditions were observed (Table I). The Majority of the project area is in a moderate departure from the natural Historical range value (HRV). Smaller portions are in a High and Low departure from Historical range value. The Fire regime for the project area in mostly in a IV LP(Lodge Pole) of 35-100 plus year frequency an d high severity followed by a less amount in III MC(Mix conifer) of 35 100 plus year frequency and mixed severity.

TABLE I

Current conditions within the project area

Fire regime condition class and departure from HRV	Sum of acres
FR I PP CC I and II 35 yrs since last fire	54
FR I PP CC III 70+ yrs since last fire	80
FR III MC CC I and II 100 yrs since last fire	297
FR III MC CC III > 150 yrs since last fire	8
FR IV LP CC I at least 35 yrs since stand replacement fire	195
FR IV LP CC II 70 yrs since stand replacement fire	1,264
FR IV LP CC III 100+ yrs since stand replacement fire	52
Non-Veg	1,232
Grand Total	**3,181**

Desired Future Condition:

It is desirable to get to low end of the HRV, reducing stand replacement fire potential and buffering communities and private property within the area. Forests are healthy and resilient to periodic disturbances from fire, insects, or disease. Fuel loading is at levels where periodic wildland fires may occur, but would burn at moderate to high intensities and create diversity. Developed recreation within the river corridor is fairly limited, currently there is only one Campground called Crescent Creek campground near Crescent Cutoff road. This is a fairly low use campground that presently provides some threat to causing a large fire. There are no official trails within the Wild and Scenic River Corridor. The private land within and adjacent to

Crescent Creek represent a potential threat/cause of fire. Forest management such as prescribed fire and timber harvest will continue to promote a resilient landscape and provide protections for communities at risk, forest health and watershed health.

- Conflicting uses: Activities which move forests, meadows, and stream sides away from the natural range of variability. Wildfire suppression techniques which cause more damage to the creek's water quality and riparian areas than direct and indirect wildfire effects. Examples are: safety zones, fire camps, or drop points in riparian areas or hydrologically connected areas, or dozer lines or fire lines in riparian areas or hydrologically connected areas that lead to excessive erosion. Consolidation, removal, relocation of maintenance of trails, roads, and campsites to protect riparian areas. Wildfire suppression that would cause more damage to the creek's water quality and riparian areas than direct and indirect wildfire effects. Activities include construction of safety zones, fire camps, retardant use and hydrologically connected hand/ dozer lines. Creation of user created roads and trails that allowing access to area's that are more susceptible to fire.

  Consistent uses: Vegetation management, as allowed by other plans and standards. This may include thinning, prescribed fire or managed wildfires which move area forests, meadows, riparian areas, and stream sides toward conditions within the historic range of Appropriate mitigations are required. Activities which alter channel morphology such as: removing or cutting instream wood, driving vehicles through the channel or stream banks, bridge or culvert installation which destabilizes stream banks, adding riprap along stream banks or other forms of inappropriate channel manipulation.
  Consolidation, removal, relocation of maintenance of trails, roads, and campsites to create egress for fire fighters. Recreation including fishing, hunting and camping.

Environmental Consequences

Alternative 1 (No Action)
Direct effects:

Effects are similar to alternative 2.There are no new fuels management actions being proposed under this alternative, so there would be little change or departure from current conditions from any projects being proposed in this analysis. Therefore there would be no change or effects to wildfire behavior resulting from any projects in this document. Forest management such as prescribed fire and timber harvest will continue to promote a resilient landscape and provide protections for communities at risk, forest health and watershed health outside of the project area.

Indirect effects:

Natural processes and past actions, particularly fire suppression, have created excessive fuel loading. These trends would continue as long as no actions are implemented.

Cumulative effects:

Forest management practices outside of the proposed project area will have an effect on changing fuels conditions adjacent to untreated areas. These Practices will have a limited effect on changing fire behavior to a certain extent within the project area.

Alternative 2 (Proposed Action)

Direct effects: Since there are no new fuels management actions being proposed under this alternative, there would be little change or departure from current conditions. Therefore, there would be no change or effects to wildfire behavior. Past projects with completed National Environmental Policy Act analyses would continue to be implemented under this proposed action; these projects would change fuel conditions and reduce fire behavior.

The proposed action allows for fire suppression and fuels management projects to be conducted following 1990 Forest Plan direction. It is recommended (based on the departure of current conditions from desired conditions) that the Deschutes National Forest plan move towards more hazardous fuels reduction projects within the watershed and corridor to increase wildfire resiliency across the landscape. These fuels projects should consider the use of hand thinning, mechanical thinning, or both and prescribed burning to meet objectives and goals in the 1990 Forest Plan. Such projects, once implemented, would reduce fuel loading and modify fire behavior to protect the watershed and the resources within it.

Indirect effects: Natural processes and past actions, particularly fire suppression, have created excessive fuel loading. An emphasis for fuels treatment within the corridor and greater watershed would help relieve this excessive fuel loading.

Cumulative effects: Implementation of projects adjacent to untreated areas will have a limited effect on changing fire behavior beyond the project area. These projects are planned to help change fire behavior and reduce impacts of potential wildfires on the environment